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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,898	08/30/2001	Simon J. Lovett	MICS:0071/FLE 00-0901	9847

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EXAMINER

PHAM, LY D

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 03/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 

09/942,898

Applicant(s)

LOVETT ET AL.

Examiner

Ly D Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

1. Applicants' response has been entered in Office Paper No. 8, dated January 07, 2003.

Response to Arguments

2. Applicants' argument with respect to the rejection of claim 12 under 35 U.S.C. 112 has been considered. Therefore, the rejection is hereby withdrawn.

3. As per claims 2 – 4, the Examiner intended to take Official Notice of the subject matter claimed in these claims as being well known in the art and not to be rejected under 35 U.S.C. 102, as it might not have been made sufficiently clear.

Grounds for rejection of these claims with clarification appear below.

4. Applicant's arguments filed January 07, 2003 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 – 2 and 5 – 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harte (US Pat 5,794,137).

Regarding claim 1, Harte discloses a system comprising:

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a processor (fig. 2, 210);

a power supply coupled to the processor (fig. 2, battery 245); and

a device coupled to the processor and the power supply (fig. 2, 250) and comprising:

an internal power supply bus (fig. 2, buses 255, 265) configured to receive a power signal from the power supply; and

an isolation (fig. 2, power control 250 handles supplies of power to various component of the system, col. 4, lines 48 – 52).

Although Harte did not expressly spell out the functionality of the power control block which is responsible for the feature as claimed in the application, it is considered obvious that by “... power down ...”, col. 4, line 49, one of ordinary skill in the art would correlatively understand as ‘configured to disconnect internal power supply bus from the power supply by interrupting of the power signal’ because there is no such thing as system can still be up while power is disconnected, or in other words, power signal being interrupted.

Regarding **claim 2**, Harte further discloses the system, as set forth in claim 1, wherein the system is a cellular phone (abstract: mobile radiotelephone)

Regarding claim 5, Harte also discloses the system, as set forth in claim 1, wherein the device comprises a memory device (fig. 2, RAM 220).

Regarding claim 6, Harte also discloses the system, as set forth in claim 1, wherein the internal power supply bus is configured to provide power signal to the device (fig. 2, bus connecting battery 245 to power control 250).

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7. Claims 3 – 4, 8 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harte in view of Larsen et al. (US Pat 5,338,978).

Regarding **claims 3 and 4**, although Harte did not further show the system being used in a PDA or a handheld computer, Larsen et al. has nevertheless shown that such system could be used in those devices (power supply isolation circuit, ABSTRACT and TECHNICAL FIELD, for applications of PDA and/or hand held computer, BACKGROUND ART).

Therefore, it would have been obvious to one skilled in the pertained art to realize possible integration of the system shown by Harte to all the devices mentioned by Larsen et al. for a wide variety of applicability.

Regarding **claims 8 and 9**, Larsen et al. further disclose the system, as set forth in claims 8 and 9, comprising an input buffer comprising a control line configured to control the isolation circuit and wherein the isolation circuit comprises a p-channel FET (col. 3, line 65 – col. 4, line 6).

Therefore, it would have been obvious to one skilled in the art, at the time the invention was made, to include the buffer in the isolation circuit, which comprises a p-channel FET, in the system of Harte to allow system control of turning off of the system (abstract).

Regarding **claim 10**, Larsen et al. further teach the gate of the p-channel FET being coupled to the control line of the input buffer (fig. 1, gate of PW1 connected to control transistor PMOS1).

Regarding **claim 11**, Larsen et al. also show an output buffer configured to buffer the device from the remainder of the system (col. 3, lines 20 – 45, OBJECTS OF THE INVENTION).

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8. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harte in view of Keeth et al. (US Pat 6,400,595 B1).

Regarding claim 7, Harte discloses the system as set forth in claim 1, except wherein the isolation circuit is coupled between a pad on the device configured to receive the power signal and the internal power supply bus. This feature is nevertheless shown by Keeth et al. (figs. 34A 34B 34C, col. 9, lines 31 – 34).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to include the pads to the power control of the system disclosed by Harte to receive power from the power bus for the purpose of distributing power.

9. Claims 8 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harte in view of Klughart. (US Pat 6,396,137 B1).

Regarding claim 8, Harte discloses the system as set forth in claim 1, except comprising an input buffer. However, this is shown by Klughart (fig. 2, Input/output buffers 0203, col. 6, lines 58 – 61) comprising a control line configured to control the isolation circuit (col. 11, lines 9 – 11). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to include the I/O buffers to the system of Harte for circuit protection purposes.

Regarding claim 9, Klughart further discloses the system, as set forth in claim 8, wherein the isolation circuit comprises a p-channel field effect transistor (FET) (fig. 3, PCH MOSFET as a power switch).

Regarding claim 10, Klughart further discloses the system as set forth in claim 9, wherein the gate of the p-channel FET is coupled to the control line of the input buffer (fig. 2, input buffer controlled by 0201 & 0202).

Regarding claim 11, Klughart further discloses the system, as set forth in claim 1, comprising an output buffer configured to buffer the device from the remainder of the system (fig. 2, output buffer in 0203).

10. Claims 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harte and Klughart and further in view of Keeth et al. (US Pat 6,400,595 B1).

Regarding claim 12, Klughart further discloses the system, as set forth in claim 11, comprising: an input/output pad (fig. 16, input Vdd pad 1602/output Vss pad 1601).

Although Klughart did not further disclose a circuitry coupled between the output buffer and the input/output pad and configured to tri-state the input/output pad, this feature has been shown by Keeth et al. (col. 4, lines 1 – 8).

Therefore, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to tri-state the I/O pad disclosed by Klughart for both read and write operation (col. 4, lines 3 – 8).

As further notes in regard to **claims 2 – 4**, the limitations claimed in these claims are considered a requirement in today's equipments such as cellular phone, personalized digital assistant (PDA), as well as hand held computer, in which all would need a CPU, power supply, with the necessity of a supply bus, and some sort of isolation circuitry for the purpose of turning the device on and off.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicants are strongly urged to review all the references cited for relevant disclosures.
12. When responding to the office action, Applicant(s) are advised to provide the examiner with the page and line numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.
13. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02(b)).
14. Any inquiry concerning this communication on earlier communications from the examiner should be directed to Ly Pham, whose telephone number is 703-305-4862. The examiner can normally be reached on Monday – Friday from 8:30am to 5:00pm, alternate Friday off. The examiner's supervisor, David Nelms, can be reached at 703-308-4910. The fax number for the organization where this application or proceeding is assigned is 703-308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Ly Pham



March 5, 2003


HOAI HO
PRIMARY EXAMINER